AMENDMENTS

In the Claims:

Please cancel claims 1-7 and 10-36, without disclaimer or prejudice to future prosecution in this or a related application.

Please add the following new claims:

37. (NEW) A method of modulating the activity of a type 2 cell-surface receptor containing an activation sequence

comprising contacting said receptor and a exogeneous compound that binds said activation sequence,

wherein said activation sequence is a segment of said cell surface receptor having at least 10% amino acid sequence identity and at least 35% sequence similarity with a segment of the same length from a MHC Class I alpha-1 domain sequence, when said identity and said similarity are determined by the Wisconsin Package, version 8.0 OpenVMS, Genetics Computer Group

and wherein said cell-surface receptor is on the surface of a cell.

38. (NEW) A method according to claim 37 wherein said cell is a mammalian cell.

39. (NEW) A method according to claim 38 wherein said cell is a human cell.

40. (NEW) A method according to claim 37 wherein said contacting is done in the absence of any exogeneous ligand which normally activates said cell-surface receptor.

41. (NEW) A method according to claim 37 wherein said contacting is done in the presence of a ligand which normally activates said receptor, wherein the level of activation is greater with a combination of ligand and exogeneous compound than with the same amount of ligand alone.

42. (NEW) A method according to claim 37 wherein the level of receptor activation is increased.

43. (NEW) A method according to claim 37 wherein the level of receptor activation is decreased.

44. (NEW) A method according to claim 42 wherein said activation comprises a conformational change in said receptor sufficient to elicit a phosphorylation event.

45. (NEW) A method according to claim 43 wherein said activation comprises a conformational change in said receptor sufficient to elicit a phosphorylation event.

46. (NEW) A method according to claim 37 wherein said cell-surface receptor is selected from the group consisting of insulin responsive glucose transporter, leptin receptor, low density lipoprotein receptor, granulocyte colony stimulating

factor receptor, interleukin receptors including IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL- 11, IL- 12, IL- 13, IL- 15 and IL- 17 receptors, human growth hormone receptor, VEGF receptor, PDGF receptor, EPO receptor, TPO receptor, transferrin receptor, prolactin receptor, T-cell receptor, CNF receptor, and epidermal growth factor receptor.